

AMENDMENTS TO THE CLAIMS

1. - 18. Cancelled

19. (presently amended) A process for producing stable cell clones or lines of transgenic plants or animals, which produce a protein of interest, which comprises introducing into cells a recombinant DNA molecule comprising ~~recombinant nucleic acid sequence comprising:~~

(a) a transcriptional promoter;

(b) a first plant-expressible gene ~~structural gene expressible in eukaryotic cells~~ linked to said transcriptional promoter;

(c) a cDNA sequence element ~~nucleic acid sequence of plant viral origin~~ designated as an internal ribosome entry site (IRES), which is located 3' to the first plant-expressible gene, whereby said IRES is a eukaryotic, plant-specific IRES of plant viral origin ~~and capable of promoting cap independent expression of 5'-distal genes in eukaryotic cells from bicistronic and/or polycistronic mRNAs;~~

(d) a second plant-expressible ~~structural gene expressible in eukaryotic cells,~~ located 3' to said IRES such that the second ~~structural~~ gene is placed under the translational control of said IRES, ~~such that the~~ wherein said first plant-expressible gene or said second plant-expressible gene is a selectable marker ~~structural gene, IRES and the second structural gene are~~

~~transcribed under the action of said transcriptional promoter to give a primary transcript, wherein the first structural gene of the primary transcript is able to translate by ribosome scanning mechanism and the translation of the second structural gene of the primary transcript is mediated by said IRES.~~

20. (presently amended) A recombinant ~~nucleic acid sequence~~  
DNA molecule comprising:

- (a) a transcriptional promoter;
- (b) a first plant-expressible gene ~~structural gene expressible in eukaryotic cells linked to said transcriptional promoter;~~
- (c) a cDNA sequence element designated ~~nucleic acid sequence functional as an internal ribosome entry site (IRES), which is located 3' to the first plant-expressible gene and wherein said IRES is a eukaryotic, plant-specific IRES of plant viral origin; and~~ characterized by being

- ~~(i) of plant viral origin;~~
  - ~~(ii) located upstream of a 5' distal structural gene;~~
  - ~~(iii) purine rich and/or having a stem loop structure;~~
- and
- ~~(iv) capable of promoting cap independent expression of 5' distal genes in eukaryotic cells from bicistronic and/or polycistronic mRNAs;~~

(d) a second plant-expressible gene ~~structural gene~~  
~~expressible in eukaryotic cells~~, located 3' to said IRES such that  
the second ~~structural~~ plant expressible gene is under translational  
control of the IRES;

wherein said first plant-expressible gene or said second  
plant-expressible gene is a selectable marker ~~gene is placed under~~  
~~the translational control of said IRES, such that the first~~  
~~structural gene, IRES and the second structural gene are~~  
~~transcribed under the action of said transcriptional promoter to~~  
~~give a primary transcript, wherein the first structural gene of the~~  
~~primary transcript is able to translate by ribosome scanning~~  
~~mechanism and the translation of the second structural gene of the~~  
~~primary transcript is mediated by said IRES.~~

21. - 22. (Cancelled)

23. (presently amended) The process ~~recombinant nucleic acid~~  
~~sequence according to claim 19, 20 or 21, wherein said IRES is a~~  
tobamovirus movement protein IRES (IRES<sub>MP</sub>) ~~nucleic acid sequence~~  
~~upstream of the movement protein gene of a plant virus belonging to~~  
~~the group of tobamoviruses and is capable of promoting expression~~  
~~of the 5' distal genes from bicistronic and/or polycistronic mRNAs~~  
~~in eukaryotic cells.~~

24. (presently amended) The ~~recombinant nucleic acid sequence~~ process according to claim 19, 20 ~~or 21~~, wherein said IRES is a tobamovirus nucleic acid sequence upstream of the coat protein IRES (IRES<sub>CP</sub>) ~~gene of a plant virus belonging to the group of tobamoviruses and is capable of promoting expression of the 5' distal genes from bicistronic and/or polycistronic mRNA in eukaryotic cells.~~

25. - 28. (cancelled)

29. (presently amended) The ~~recombinant nucleic acid sequence~~ process according to claim 19, 20 ~~or 21~~, wherein said protein of interest is ~~at least one of the structural genes encodes a desired polypeptide product selected from the group consisting of selectable markers, toxins, hormones, gene silencing suppressing proteins, proteases or~~ and viral proteins.

30. (presently amended) The ~~recombinant nucleic acid sequence~~ process according to claim 19 29, wherein said ~~structural gene encoding the~~ selectable marker confers antibiotic resistance, or herbicide resistance, ~~color change, or encodes a polypeptide which~~

~~is capable of reacting with a compound to produce a detectable signal.~~

31. (presently amended) The ~~recombinant nucleic acid sequence~~ process according to claim 19, ~~20 or 21~~, wherein the transcriptional promoter is a constitutive or inducible plant-specific ~~eukaryotic specific~~ promoter.

32. (Cancelled)

33. (presently amended) The process ~~recombinant nucleic acid sequence~~ according to claim 19, ~~20 or 21~~, wherein the recombinant DNA molecule ~~nucleotide sequence~~ additionally comprises at a 3'-position of said second ~~structural~~ plant-expressible gene an IRES, which may be the same or different, and an additional ~~downstream~~ gene encoding a desired polypeptide ~~product to give a polycistronic mRNA.~~

34. (presently amended) The ~~recombinant nucleic acid sequence~~ process according to claim 19 ~~33~~, wherein said process ~~polycistronic mRNA~~ provides for coordinated expression of multiple polypeptides or several enzymes of a biosynthetic pathway.

35. (Cancelled)

36. (presently amended) A eukaryotic cell transformed with a recombinant DNA molecule ~~nucleic acid sequence~~ according to claim ~~19, 20 or 21~~.

37. (Cancelled)

38. (presently amended) A transgenic plant containing the ~~eukaryotic organism transformed with a~~ recombinant DNA molecule ~~nucleic acid sequence~~ according to claim ~~19, 20 or 21~~.

39. (Cancelled)

New claims:

40. (New) The process according to claim 19, wherein said IRES is derived from a crucifer-infecting tobamovirus (crTMV).

41. (New) The recombinant DNA molecule according to claim 20, which additionally comprises in 3' position of said second plant expressible gene a different or the same IRES, and a gene encoding a desired polypeptide.

42. (New) An isolated nucleic acid molecule containing an

internal ribosome entry site (IRES) of a movement protein gene of a plant virus.

43. (New) The isolated nucleic acid molecule according to claim 42, which is derived from a crucifer tobamovirus.